

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL081121\  
 Data File : VL037376.D  
 Acq On : 11 Aug 2021 3:04  
 Operator : SY/AP  
 Sample : VSTDIC002  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

Manual Integrations  
 APPROVED

apatel  
 8/12/2021 10:16:35 AM

Quant Time: Aug 11 08:49:39 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081121AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Aug 11 08:49:39 2021  
 QLast Update : Wed Aug 11 03:21:19 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 1313894  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.17  | 114  | 3957617  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.08 | 117  | 3611791  | 10.00 | ppbv  | 0.00     |

## System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.41  | 95    | 2524582  | 9.27     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 92.70% |

## Target Compounds

|                                |      |     |         |              | Ovalue |
|--------------------------------|------|-----|---------|--------------|--------|
| 2) Dichlorodifluoromethane     | 3.04 | 85  | 357221  | 1.595 ppbv   | 95     |
| 3) Chlorodifluoromethane       | 2.99 | 51  | 501496  | 1.978 ppbv   | 100    |
| 4) Chloromethane               | 3.14 | 50  | 179639  | 2.107 ppbv   | 91     |
| 5) Vinyl Chloride              | 3.25 | 62  | 180171  | 1.932 ppbv   | 97     |
| 6) Bromomethane                | 3.47 | 94  | 101498m | 1.868 ppbv   |        |
| 7) Chloroethane                | 3.56 | 64  | 62921m  | 1.879 ppbv   |        |
| 8) Dichlorotetrafluoroethane   | 3.19 | 85  | 417213  | 1.811 ppbv   | 96     |
| 9) Propene                     | 3.01 | 41  | 162747  | 1.992 ppbv   | 96     |
| 10) Heptane                    | 8.12 | 43  | 403554  | 2.031 ppbv   | 98     |
| 11) Trichlorofluoromethane     | 3.95 | 101 | 398634  | 1.691 ppbv   | 98     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.48 | 101 | 293639m | 1.775 ppbv   |        |
| 13) Ethanol                    | 3.61 | 45  | 19420m  | 1.558 ppbv   |        |
| 14) Bromoethene                | 3.74 | 108 | 130466  | 1.854 ppbv   | 99     |
| 15) Acetone                    | 3.85 | 43  | 277316  | 1.893 ppbv # | 74     |
| 16) 1,3-Butadiene              | 3.33 | 39  | 180814m | 2.077 ppbv   |        |
| 17) tert-Butyl alcohol         | 4.30 | 59  | 217647m | 1.657 ppbv   |        |
| 18) 1,1-Dichloroethene         | 4.29 | 96  | 133986m | 1.819 ppbv   |        |
| 19) Isopropyl Alcohol          | 3.98 | 45  | 142191m | 1.643 ppbv   |        |
| 20) Methylene Chloride         | 4.34 | 84  | 134903  | 1.546 ppbv   | 97     |
| 21) Allyl Chloride             | 4.41 | 41  | 186153  | 1.696 ppbv   | 93     |
| 22) trans-1,2-Dichloroethene   | 4.88 | 96  | 123914m | 1.702 ppbv   |        |
| 23) Vinyl Acetate              | 5.07 | 43  | 434793m | 2.049 ppbv   |        |
| 24) 1,1-Dichloroethane         | 5.01 | 63  | 333670m | 1.981 ppbv   |        |
| 25) Ethyl Acetate              | 5.68 | 43  | 649364  | 2.016 ppbv   | 98     |
| 26) Hexane                     | 5.68 | 57  | 340904  | 2.102 ppbv   | 94     |
| 27) Carbon Disulfide           | 4.55 | 76  | 275469  | 1.791 ppbv   | 99     |
| 28) Methyl tert-Butyl Ether    | 5.03 | 73  | 366846m | 1.922 ppbv   |        |
| 29) Chloroform                 | 5.75 | 83  | 469811  | 1.901 ppbv   | 97     |
| 30) Cyclohexane                | 7.12 | 84  | 273123  | 2.022 ppbv   | 86     |
| 31) cis-1,2-Dichloroethene     | 5.55 | 61  | 297769m | 2.003 ppbv   |        |
| 32) 1,1,1-Trichloroethane      | 6.51 | 97  | 448163  | 1.702 ppbv   | 99     |
| 34) 2-Butanone                 | 5.25 | 43  | 322154m | 2.117 ppbv   |        |
| 35) Carbon Tetrachloride       | 7.01 | 117 | 453953  | 1.755 ppbv   | 98     |
| 36) Benzene                    | 6.88 | 78  | 673198  | 2.108 ppbv   | 97     |
| 37) 1,2-Dichloroethane         | 6.30 | 62  | 330186  | 1.823 ppbv   | 99     |
| 38) Trichloroethene            | 7.83 | 130 | 270859m | 1.798 ppbv   |        |
| 39) 1,2-Dichloropropane        | 7.61 | 63  | 247800  | 2.097 ppbv   | 98     |
| 40) 1,4-Dioxane                | 7.85 | 88  | 59574m  | 1.832 ppbv   |        |
| 41) Tetrahydrofuran            | 6.06 | 42  | 146687m | 2.062 ppbv   |        |
| 42) Bromodichloromethane       | 7.78 | 83  | 474966  | 1.902 ppbv   | 98     |
| 43) Methyl Methacrylate        | 8.01 | 69  | 217682  | 1.981 ppbv   | 100    |

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| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.87  | 57   | 1127258m | 2.092 | ppbv   |          |
| 45) t-1,3-Dichloropropene     | 9.27  | 75   | 162638m  | 1.741 | ppbv   |          |
| 46) cis-1,3-Dichloropropene   | 8.70  | 75   | 229087   | 1.784 | ppbv   | 94       |
| 47) 1,1,2-Trichloroethane     | 9.46  | 97   | 264286   | 1.963 | ppbv   | 98       |
| 48) Dibromochloromethane      | 10.30 | 129  | 399422m  | 1.920 | ppbv   |          |
| 49) Bromoform                 | 13.03 | 173  | 307149m  | 1.981 | ppbv   |          |
| 50) 4-Methyl-2-Pentanone      | 8.75  | 43   | 404272   | 1.941 | ppbv   | 98       |
| 51) 2-Hexanone                | 10.15 | 43   | 190818m  | 1.911 | ppbv   |          |
| 52) Tetrachloroethene         | 11.21 | 164  | 246010   | 1.677 | ppbv   | 96       |
| 53) Toluene                   | 9.80  | 91   | 774866m  | 2.036 | ppbv   |          |
| 54) 1,2-Dibromoethane         | 10.60 | 107  | 387703m  | 2.010 | ppbv   |          |
| 56) 1,1,1,2-Tetrachloroethane | 12.12 | 131  | 286741   | 1.861 | ppbv # | 1        |
| 57) Chlorobenzene             | 12.14 | 112  | 571616   | 1.968 | ppbv   | 94       |
| 58) Ethyl Benzene             | 12.70 | 91   | 994826   | 2.006 | ppbv   | 95       |
| 59) m/p-Xylene                | 12.98 | 91   | 1730469m | 4.114 | ppbv   |          |
| 60) o-Xylene                  | 13.68 | 91   | 792875   | 1.989 | ppbv   | 99       |
| 61) Styrene                   | 13.52 | 104  | 427617m  | 2.097 | ppbv   |          |
| 62) Isopropylbenzene          | 14.66 | 105  | 1129515  | 1.987 | ppbv   | 98       |
| 63) 1,1,2,2-Tetrachloroethane | 13.67 | 83   | 571485   | 2.120 | ppbv   | 96       |
| 64) n-propylbenzene           | 15.55 | 120  | 283542   | 2.008 | ppbv   | 92       |
| 65) tert-Butylbenzene         | 16.73 | 119  | 1046726  | 2.080 | ppbv   | 98       |
| 66) Benzyl Chloride           | 16.99 | 91   | 40540m   | 1.827 | ppbv   |          |
| 67) sec-Butylbenzene          | 17.29 | 105  | 1449975  | 2.138 | ppbv   | 100      |
| 69) p-Isopropyltoluene        | 17.64 | 119  | 1200754  | 2.114 | ppbv   | 98       |
| 70) n-Butylbenzene            | 18.54 | 91   | 1121010m | 2.118 | ppbv   |          |
| 71) 2-Chlorotoluene           | 15.45 | 91   | 831762   | 2.087 | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 15.83 | 105  | 958612   | 2.106 | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 15.99 | 105  | 880804   | 2.005 | ppbv   | 92       |
| 74) 1,2,4-Trimethylbenzene    | 16.75 | 105  | 932594   | 2.063 | ppbv # | 91       |
| 75) 1,3-Dichlorobenzene       | 16.99 | 146  | 527485   | 1.919 | ppbv   | 97       |
| 76) 1,4-Dichlorobenzene       | 17.13 | 146  | 542704m  | 1.976 | ppbv   |          |
| 77) 1,2-Dichlorobenzene       | 17.81 | 146  | 535055m  | 2.011 | ppbv   |          |
| 78) Hexachloro-1,3-Butadiene  | 23.36 | 225  | 432758m  | 1.905 | ppbv   |          |
| 79) Naphthalene               | 22.19 | 128  | 450910   | 1.254 | ppbv   | 97       |
| 80) Naphthalene, 2-methyl-    | 24.97 | 142  | 89693    | 1.040 | ppbv # | 73       |
| 81) 1,2,4-Trichlorobenzene    | 21.91 | 180  | 329481m  | 1.555 | ppbv   |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

